

Dear Ms. Marlene H. Dorich, Office of the Secretary, FCC

My name is Nick Slater and I have developed a modular solution for deploying wireless internet in rural areas. My rural broadband system is inexpensive, reliable, green, modular and easy to deploy.

As background, I have attached my resume below. For the record, I was born in England in 1957, I became a Canadian citizen in 1973 and obtained Permanent Residency Status in the United States in 1989. I have ties in all three countries both friends and relatives and travel as often as time and money will permit.

In 1992, I formally retired from a successful professional career in Silicon Valley to allow time to pursue my interests in the convergence of computers and communications, education and learning, and the burgeoning internet. I began by developing software while still providing consulting services in San Francisco. In 1995, I set up my first ISP operation in my old hometown of Parry Sound, Ontario, Canada, ostensibly to spend more time with my parents, who were not getting any younger. From this evolved All Canadian Dialup then All American Dialup, soon I was providing Dialup Internet across Canada and the United States. My clients could roam freely and stay connected as long as they had access to a phone line.

Soon it became apparent that there were many places where you could not even get a phone line. As a result, in 1998 I began field testing many types of equipment in harsh climates. In 2003, I began formal field trials of the rural broadband internet system I had developed. By 2007, I had expanded this system to cover many hundreds of square miles. This system has been operating flawlessly since that time through three of the harshest winters on record in Northern Ontario, Canada. We feel the resulting product would have little problem working in any region of the U.S. including Alaska. Some details of that system follows. I am interested in discussing deployment of this system or licensing of same where needs warrant.

Specifications: Our Wireless Delivery System depends on state-of-the-art ruggedized wireless modules tailored to the population density required. In general 10Mbps radios are used which can easily handle 100's of

clients. These radios can be upgraded to 100Mbps radios as served population density increases. Internet, video, phone and even cellphone calls can be managed by this wireless system. Enough bandwidth for multiple video streams, low latency and high reliability are the hallmarks of this successful wireless system. Bandwidth required is reduced through the development of a local community network as most internet transactions are expected to be within 50 miles of the subscriber. Wireless is a way of getting the signal into an area where wireless bandwidth can be matched with other networks bandwidth such as cable based on fiber or dsl based on wire pairs. Fiber is expensive to deploy but range and bandwidth are virtually unlimited. DSL is expensive to deploy except in town, range and bandwidth are limited. Satellite is ubiquitous, but bandwidth is low, latency is bad, monthly cost is high.

Costs: The major cost of any wireless deployment is the cost of land and preparing the land for tower construction. This cost can be significantly reduced if a strategic tower host is found. Since wireless equipment is very light, a low cost simple tower can be erected which still offers robust performance up to 125mph winds and all weather. Since no wires are used, there is no ongoing cost for the wireless system except for upgrade, maintenance and repairs, land cost and internet bandwidth. Power is a profit-point not a cost.

Benefits: Complete Wireless Broadband Coverage is achieved at the lowest possible cost. The solar farm which powers the network generates energy which can be fed back to the grid or used by tower host. The tower does not have to dominate the landscape in order to be effective. It can be under 200ft which relieves any requirement for painting or lighting preserving the night sky and minimizing bird death.

Security: Each system is equipped with a steerable webcam with night vision. Centralized systems are more at risk from terroristic threat or environmental catastrophe. Almost 80% of Ontario's power comes from one nuclear reactor, which could be gone in a single aircraft accident as shown by 9/11. Power to the people has new meaning, 40 years later. A system owned and operated by a rural community provides the greatest

level of support, security and reliability possible.

Community Impact: Broadband wireless will help to bring people to rural areas that can now work at home or cottage. It will reduce population concerns in urban centres and the associated problems of pollution and crime. It will allow all North Americans to educate their children without concern for tuition fees or travel to educational institutions. It will bring awareness to North Americans of the problems of preservation of the environment, species at risk and global warming at a time when these issues really are the most critical.

CURRICULUM VITAE

Nicholas John Slater
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tel/fax: (705) 746-4625
email: nick@zeuter.com

EDUCATION

1982 Master of Electrical Engineering, McMaster University
=E2=97=8F RF & Microwaves/SAW Filters/Lasers
1980 Bachelor of Engineering Physics, McMaster University
=E2=97=8F Dean's Honour List, Electro-optics/Biomedical/Nuclear
1975 Secondary School Graduation, Parry Sound High School (PSHS)
=E2=97=8F Graduation with Honours, Yearbook Editor, Student Council

HONOURS & AWARDS

2009 Microsoft Certified Professional (MCDST)
2008 Amateur Radio (HAM) License
2004 Professional Engineering License
1999 Certificate of Achievement - Macintosh/Powerbook Service
Certification Exam
1999 Certificate of Achievement - LaserWriter Service Certification Exam
1976 Chancellor's Scholarship, McMaster University
1975 Ontario Scholar

ASSOCIATIONS & MEMBERSHIPS

iPhone Developer since 2009

Blackberry Developer since 2008

Red Hat Network (Linux) Member since 2003

Apple Macintosh Developer since 1994

Microsoft Windows Developer since 1993

Institute of Electrical and Electronics Engineers (IEEE) Member since 1982

PUBLICATIONS

"A New Breed of Diode Laser", Technology Trends, Photonics Spectra, April 1990.

"Improved Modeling of Wide-Band Linear Phase SAW Filters Using Transducers with Curved Fingers" in IEEE Trans. on Sonics and Ultrasonics, vol. SU-31 pp. 46-50, January 1984.

"Design of Wideband Linear Phase Surface Acoustic Wave Filters", Master's Thesis, McMaster University, 1982

EMPLOYMENT

1991 International Sales Manager, Applied Laser Systems, Grants Pass, OR

- o involved in sales of military grade laser systems to NATO countries
- o travel to NATO countries, meet with dignitaries
- o hosted meeting in Versailles, France

1990 Product Marketing Manager, Fujitsu Microelectronics, Santa Clara, CA

- o Fiber Optic Laser and Receiver Systems
- o Telecommunications, Cable Companies, Data Communications
- o Military Applications (High Reliability Fabrication)

1985 Product Marketing Engineer, NEC Electronics, Mountain View, CA

- o Lasers & Fiber-Optic Components, LEDs, Detectors, Receivers, Datalinks
- o Telecom/Datacom/Cable/Industrial/Medical/Sensor Markets
- o Voting Member on ANSI X3T9.5 (FDDI) Committee (SONET)

1984 SAW Filter Design Engineer, Siemens - Crystal Technology, Palo

- o Electro-optic Crystal Design
- o SAW Filter/Resonator Design, Fabrication and Test
- o Designed Photolithographic CAD/CAM Systems

- o High Reliability Communications Systems, Burn-in and Environmental Test
- o Transceiver Design for FedEx Handheld PDAs
- o SCADA Systems for Logging, Heavy Equipment, Tethered Submersibles

- o SAW (Surface Acoustic Filter) Design for Satellite Systems
- o Photolithographic Fabrication and Test

o Computer Programming, Field Trials, Data Analysis, High Speed Photography

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